RipNAS USER MANUAL

for S320, S640, S500, S1000, statement and Z500

RipNAS combines and perfects Audio CD ripping, Network Attached Storage and Media Streaming in one easy to use small box. Audio CDs are ripped to a lossless audio format stored securely.

Audio files are shared for streaming through the network to a multitude of available Network audio players. Windows Home Server (WHS) is the OS of choice, offering complete home backup for Windows PCs.

The following audio streaming services are built into RipNAS:

- SqueezeCenter – Logitech Duet / Transporter / Boom, etc,
- SMB / CIFS – network shares (Sonos, etc),
- iTunes DAAP Apple – play through iTunes installed on PCs,
- Asset UPnP (DLNA compatible devices) – 100's of devices

Discs supplied with RipNAS

- **Set Audio Encoder CD**: 3x CDs to switch audio formats used by RipNAS, without the need of configuring through a PC. Choices are: FLAC (default), Apple Lossless or FLAC & mp3 (high quality Fraunhofer 320kbps mp3 files are written to \\RipNAS\Public\mp3). Insert a 'Set Audio Encoder to…' into RipNAS and wait for it to be ejected, subsequent discs ripped will be in the format chosen.
- **RESCUE CD Set**: 1 Boot-CD, 1 DVD with latest software image

RipNAS is a trademark of Illustrate, iTunes is a trademark of Apple,Windows Home Server a trademark of Microsoft, Sonos is a trademark from Sonos, Duet, SqueezeCenter, Transporter, Boom, SB2, SB3 are trademarks of Logitech
DS is a trademark of Linn

RipNAS is marked with the above symbol to indicate at the end of the equipments life time, you must dispose of it separately at an appropriate collection point (local recycling center) and not place with normal domestic unsorted waste. This will benefit the environment for all. [EU Directive 2002/96/EC and EN50419]

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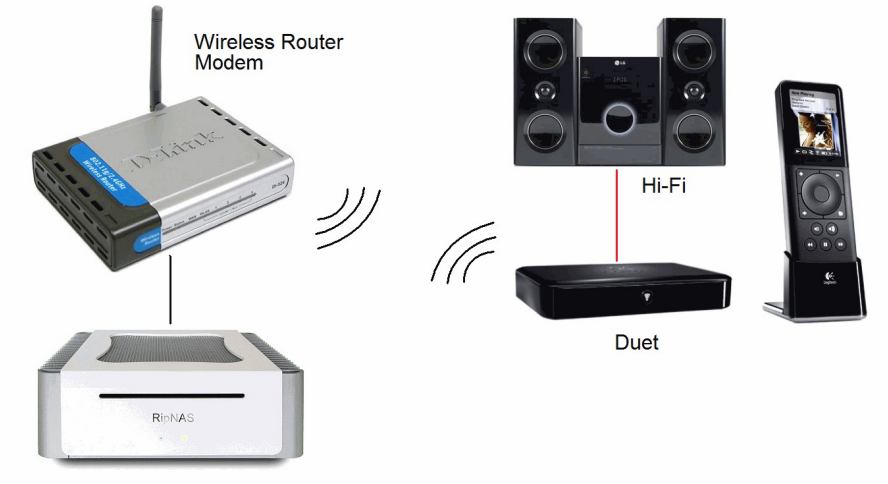
1. RipNAS: Ten Minute Setup Guide

RipNAS is configured *ready to rip* right out of the box:

- **Unpack RipNAS:** consider where RipNAS will be placed. Being a passive cooled system (no fans) ideally do not place RipNAS in an enclosed cabinet, in direct sunlight and never near sources of water. Ensure the vents on the top are left

  uncovered, it is normal for the sides of RipNAS to get warm to the touch when RipNAS is working hard,

- **Connecting RipNAS to your Network:** RipNAS requires a wired connection to your wireless or broadband router, A Typical setup might be:



- **Plug RipNAS into the mains:** connect the mains power 'brick' to RipNAS before switching on at the mains. RipNAS only requires a mains & network connection, no keyboard, mouse or screen required. Tap the RipNAS **On / Off** switch at the back to power on,

- **Check RipNAS is operating:** after switching on the blue power light should illuminate on the front, occasionally the yellow hard drive activity light will flash, also the network lights on the back (yellow) should illuminate to show a good Ethernet connection. RipNAS takes approximately 60 seconds to startup.

Should you wish to switch off RipNAS, tap the **On / Off** button on the back and wait for the power lights to extinguish. RipNAS is designed as a server for 24 / 7 operation with low power usage (approximately 20 Watts when idle for the base model).

2. Ripping Audio CDs

RipNAS is preconfigured ripping to FLAC, a popular lossless format. FLAC is the format of choice for Sonos and Logitech devices. UPnP devices: view the **RipNAS & UPnP (DLNA)** section later on.

Ripping is as simple as inserting an audio CD (silver side facing down) and waiting approximately 3-4 minutes for ripping to complete, once complete the CD is ejected. Metadata is retrieved from 4 internet databases: AMG, GD3, MusicBrainz and freedb, using a system called PerfectMeta™ where errors from single providers are corrected. Should no metadata be available for a CD (perhaps is obscure, or new), RipNAS will reject the CD without ripping (can take up to 30 seconds), if the CD is re-inserted a 2nd time it would be ripped and tracks titled as 'Unknown Artist #1 – Track 1' etc.

Ripped audio tracks are automatically saved to the **Music** share to be streamed by devices on the network.

2.1. Ejecting a CD

i) Click on the CD EJECT icon on the RipNAS desktop

ii) From WHS Console, click the **Eject CD** button,

iii) Shut down RipNAS (tap On / Off button) and when restarts RipNAS will auto-eject CD on startup.

iv) Some models like Z500 have a hole in the front, where you can put a pin into it to eject the CD

2.2. Secure Ripping

Secure ripping is available on 'Secure RipNAS Models' and is enabled by default. When secure ripping is active tracks with unrecoverable errors are separated into a different folder (**Music_InSecure**) and the disc will appear in the *With Errors* section (of the Windows Home Server Console, covered later). If the disc is present in AccurateRip's database, ripping can proceed in a single pass (burst). Discs not in the database will take twice as long to rip as the 2nd rip verifies the track.

Should a disc have errors, we recommend:

- Give the disc a light clean,
- The disc can be re-ripped in RipNAS after a different CD is first ripped (otherwise it is rejected as a duplicate),
- If the errors can now be corrected (from cleaning), the tracks with errors will be removed from the **_InSecure** folder and stored in the correct [artist]\ folder.

3. Doing more with RipNAS

3.1. Remote-Access to the RipNAS

You have 3 different methods to access the RipNAS from another PC:

1. with WHS Console: the WHS console needs to be installed on your PC.
2. Access with remote desktop: this works only with VISTA, WIN7 or XP Professional PCs
3. Accessing Audio Files / Folders on RipNAS
4. Access via Webbrowser: this is the quickest method to access to the RipNAS. All devices (Windows PC, Apple, iPhone) who have network access and an internet explorer can do that.

To access the RipNAS with Webbrowser or Remote Desktop should be done only by professional users, because you can easily destroy WHS and then you need to reload manufactory settings.

To access the RipNAS with WHS console is recommended, since you can see only settings, which you are allowed to change. WHS console also takes over the backup of your PC.

3.2. Connecting through WHS Connector

Windows based PCs connect to RipNAS through Connector to:

- View ripping status & configure ripping parameters (such as encoder),
- Windows PC backups nightly to RipNAS,
- Report any issues facing the RipNAS system (such as a failing hard disk drive),

WHS Connector is installed on a PC by inserting the RipNAS Connector disc (Apple users see Remote Desktop section) and follow the onscreen instructions. After installing WHS onto a PC an icon is placed in the tray area of Windows:

Right clicking on this icon allows access to the connector.

On connection specify password as: **ripnas=[serial]** (ie *ripnas=123456*)

3.3. Connecting by Remote Desktop

Remote desktop is preinstalled on most Windows PCs (start >> Programs >> Accessories >> Remote Desktop Connection), Apple users install remote desktop using the Connector Disc (detailed later). Type the computer name as **ripnas** (mac users: ripnas.local or ripnas.localdomain), if presented with a domain entry box type: **ripnas**

On connection specify the username: **Administrator** pass: **ripnas=[serial]** (ie *ripnas=123456*),

Once connected the RipNAS desktop is shown, open Windows Home Server Console (blue icon) to access settings and view RipNAS status.

Installing Apple Remote Desktop Connector

1. Insert RipNAS RESCUE#2 Disc, open CD drive and Double-click the **RDC200_ALL1.dmg** file to mount the Remote Desktop Connection volume.
2. On the Desktop, open the **Remote Desktop Connection** volume.
3. Copy the **Remote Desktop Connection** folder from the Remote Desktop Connection volume to your hard disk.
4. If the Remote Desktop Connection folder was copied to your hard disk successfully, you can move the Remote Desktop Connection volume, the .dmg file, and the original file you downloaded (if present) to the Trash.
5. To complete the installation, run the program by opening the Remote Desktop Connection folder that you copied to your hard disk, and then double-click **Remote Desktop Connection**.

3.4. Accessing Audio Files / Folders on RipNAS

RipNAS shares the folder \\ripnas\music it is possible to access audio tracks on RipNAS directly through this folder, delete, edit ID Tags or copying downloaded tracks from your PC to RipNAS. It is recommended that occasionally a complete backup of all audio on RipNAS is taken, connect a USB drive to your PC and copy the audio across the network. This folder is password protected, it can be accessed through user: **sonos** password: **sonos**

3.5. Web Browser access

Type into the web browser: http://ripnas:5800/ note that your firewall must have port 5800 allowed for the web browser and Java script be enabled. On connection type the password as **ripnas** and click the **Send Ctl+Alt+Del** button to log into RipNAS as username: **Administrator** pw: **ripnas**, once connected the RipNAS desktop is shown, open Windows Home Server Console to access settings and view RipNAS status.

3.6. Daily USB backup

The USB backup software detects automatically, if a USB drive is connected and copies the latest music files on a daily basis. This way the external drive is updated every day.

Alternatively:

A simple way to backup RipNAS is to connect a USB HDD of equal or larger size to the RipNAS to a PC on the network, and access RipNAS through \\ripnas\music (see above). Select all the audio folders (press Control + A), copy (Control + C), then browse to the USB HDD and paste the audio folders (Control + V). Once copying has taken place, remove the USB HDD to a safe location.

It is also possible to connect a USB HDD to RipNAS (self powered only) and backup through the WHS Console, see http://bit.ly/5RVqRu for more details.

3.7. Editing Metadata

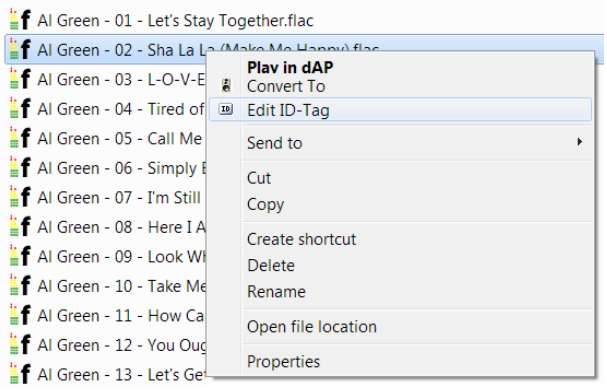
Whilst ripping it is possible for tracks to be miss-labelled, or be labelled as Unknown Artist – Unknown Track on occasion, manual tagging is required to correct the tags.

There are different ways of editing ID Tags, from RipNAS its self (through Remote Desktop), or by using a PC on the network. To correct from the RipNAS, open a Remote Desktop Connection (covered later in manual), when presented with the RipNAS desktop double click the Music Share icon, locate the offending track(s), right click on one and select **Edit ID-Tag** and correct the tag.

It is also possible to correct tags using a computer on the network, open the network share \\ripnas\music (when asked for a user name and password type user: **sonos** password: **sonos**). The audio tracks can be accessed by your preferred ID Tag editor (such as mp3tag (http://mp3tag.de/) or dBpoweramp)

You have different methods of editing the metadata:

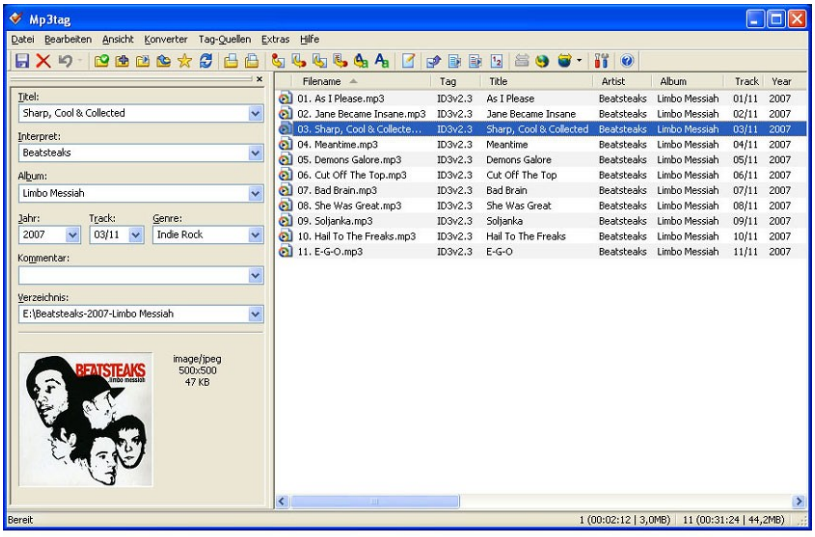
1. remote access to RipNAS with Web-Browser or Remote Desktop
   → open explorer,
   → go to shared folders/music
   → click on your music files with the right mouse button
   → edit metadata


Al Green - 01 - Let's Stay Together.flac
Al Green - 02 - Sha La La (Make Me Happy).flac
Al Green - 03 - L-O-V-E
Al Green - 04 - Tired of
Al Green - 05 - Call Me
Al Green - 06 - Simply
Al Green - 07 - I'm Still
Al Green - 08 - Here I A
Al Green - 09 - Look W
Al Green - 10 - Take Me
Al Green - 11 - How Ca
Al Green - 12 - You Oug
Al Green - 13 - Let's Ge
Play in dAP
Convert To
Edit ID-Tag
Send to
Cut
Copy
Create shortcut
Delete
Rename
Open file location
Properties

2. connect the music folder of the RipNAS to your PC:
   → search in your network neibourhood for the RipNAS, click on RipNAS
   → connect with RipNAS (login: sonos / password: sonos)
   → mount the music folder to your PC
   → install a metadata editor like MP3 tag
   → edit the metadata and covers from your local PC

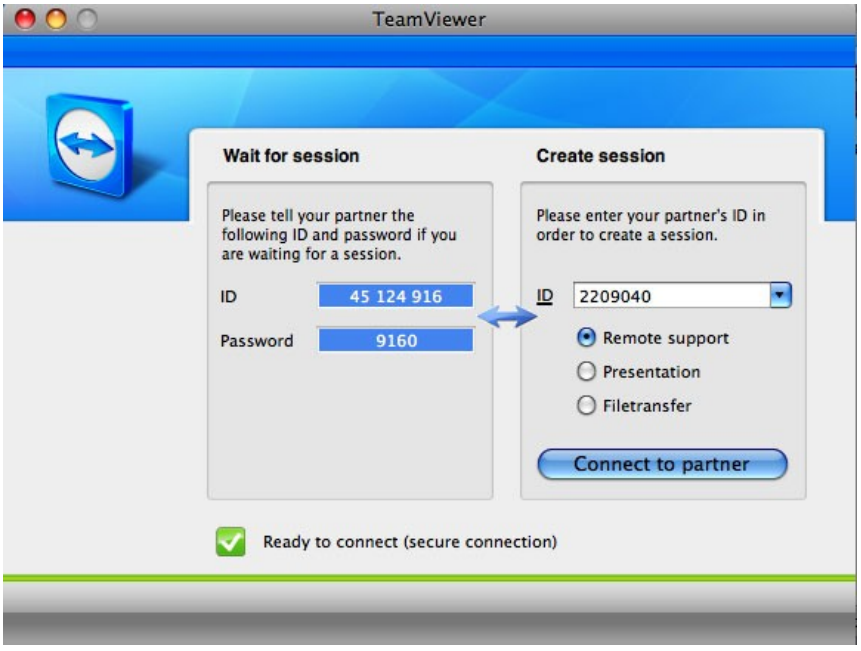
3. remote access to RipNAS with Web-Browser or Remote Desktop
   → double click on the desktop item “edit metadata”
   → install the freeware M3 tag
   → now you can edit metadata and covers

With the provided link to mp3 tag you can install it and edit metadata and covers after ripping.



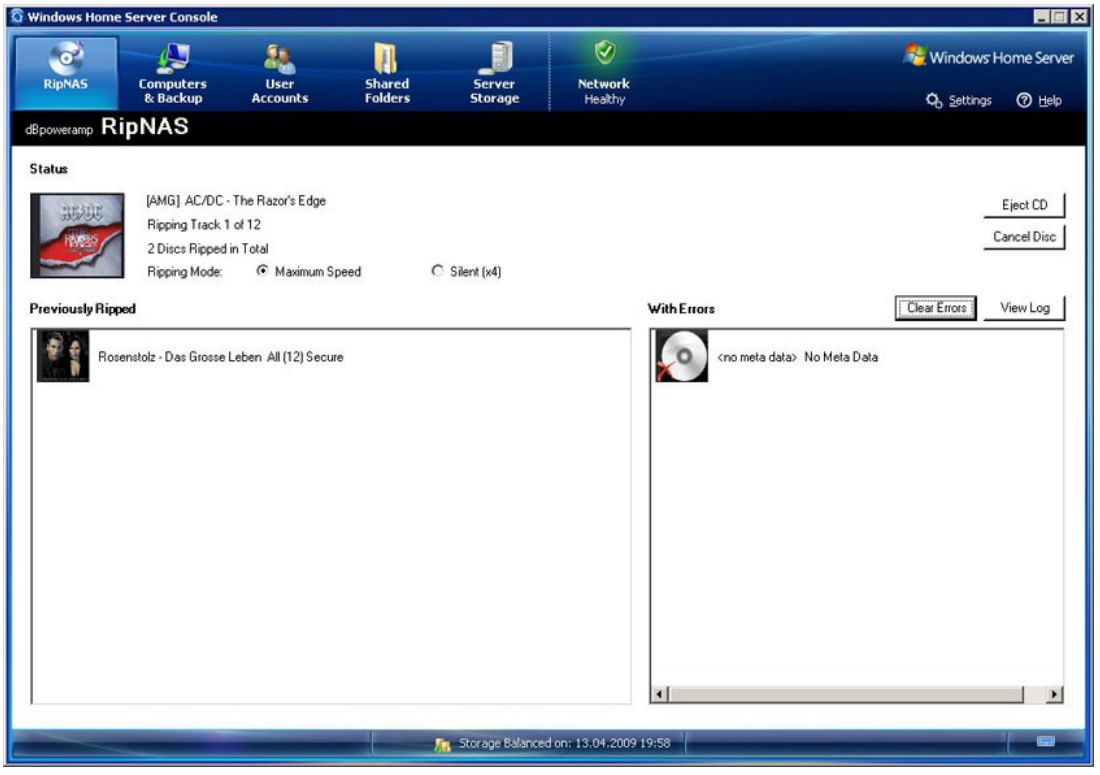
3.8. Remote help and support

With Team Viewer you can ask any friend to logon over the internet into the RipNAS and help you to configure.



3.9. Progress control, silent mode and audio file formats

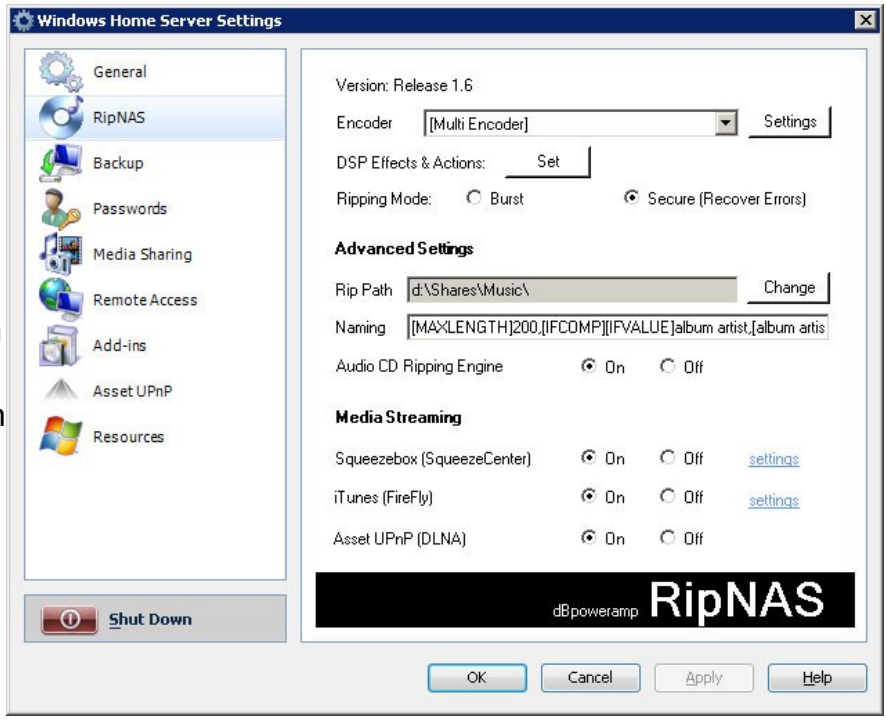
With the WHS console you can change audio file formats, switch to silent mode or just watch the progress during ripping.



4. Changing settings with Windows Home Server (WHS)

RipNAS runs Windows Home Server, which includes additional benefits:

- Backup home PCs (XP & Vista) automatically daily to RipNAS,
- Control RipNAS through Windows Home Server Connector using PCs on the Network,
- Server strength OS, secure & automatically updated



4.1. WHS Preconfigured Accounts

RipNAS is supplied with the account preconfigured:

User: Administrator Pass: ripnas=[serial] (example *ripnas=123456*)

Where [serial] is replaced with the serial number of your machine. The full password is shown on a label underneath the RipNAS below the WHS COA sticker. The username and password are required when performing various actions with WHS (such as installing Connector onto a PC, etc).

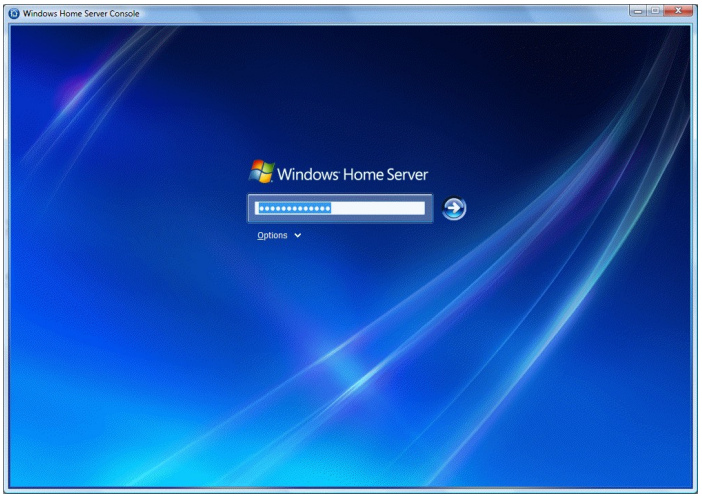
4.2. WHS Connector

Windows Home Server connector allows ordinary PCs on the network (running Vista & XP) to connect to RipNAS and perform:

- Complete system backup nightly to RipNAS,
- View ripping status & configure ripping parameters (such as encoder used),
- Configure WHS settings,
- WHS will report any issues facing the RipNAS system (such as a failing hard disk drive),

WHS Connector is installed on a PC by inserting the RipNAS Connector disc and following the onscreen instructions, by default the PC is configured to back up overnight, waking the PC as required from Sleep or Hibernate to backup. After installing WHS onto a PC an icon is placed in the tray area of Windows:

Right clicking on this icon allows access to the connector, such as opening the Windows Home Server console:



Specify the Administrators password to access the Connector and the WHS Console will display:

The ripping status is shown at the top (CD drive ripping speed is shown in [ ] brackets i.e. x22). **Ripping Mode** allows for silent ripping at x4 speed which renders the drive in-audible, but takes longer to rip.

When secure mode is active (model permitting), each disc has an accuracy report appended after the album name, such as:

- **All (xx) Accurate**: all tracks were verified as 100% without error using AccurateRip,
- **All (xx) Secure**: the disc was not present in AccurateRip, instead the drives c2 pointers and re-rip are used to check the track was error free,
- **xx Accurate, xx Insecure**: some tracks had unrecoverable errors, see the shared folder *Music_InSecure* for tracks with errors, if the disc is cleaned and re-ripped (a

different CD would have to be ripped in-between) then there is a chance the errors can be recovered on a 2nd rip and the tracks would move from *_InSecure* to the correct [artist]\ folder.

Clicking **View Log** can be useful to see a detailed ripping report and help diagnose issues.

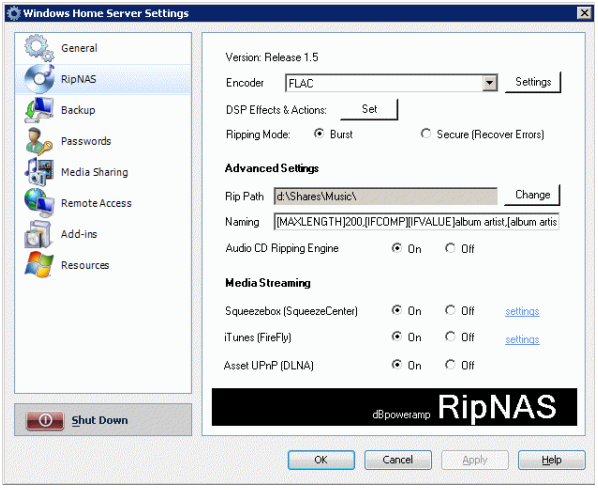
This tab shows which computers backup to RipNAS, manual backups can be triggered, and individual files from a backup can be restored.

4.3. Network

Shows as green if everything is running without issues, amber when there is something which needs attention and red to indicate an urgent review is required.

4.4. Settings (button)

Settings allow access to all configuration options of WHS and RipNAS. RipNAS has the following settings:



Encoder (audio format) can be chosen, clicking Settings allows for fine control within the selected encoder. RipNAS comes preinstalled with the following encoders: FLAC, Wave, mp3, WMA (Lossless), Apple Lossless. In addition any supported dBpoweramp encoder can be installed. Also present is [Multi-Encoder] which allows two audio-formats to be encoded at the same time (for example a FLAC lossless archive along with an mp3 collection for use in a portable mp3 player).

DSP Effects & Actions each time audio is taken from a CD it is run through DSP effects, by default these effects are used:

ReplayGain - calculates a volume loudness which supported players (such as Logitech Duet) can use to level the volume.

Move Destination File on Error [secure models only] - detects a rip is not secure and moves the affected file to _Insecure

RipNAS - Update (Squeezecenter...) - informs SqueezeCenter that there are newly ripped audio files for instant indexing. It is safe to use this effect even if SqueezeCenter is not installed.

One DSP effect of interest is the HDCD effect which will decode the HDCD information found on HDCD discs from 16 bit to 24 bit (20 bits used). Be aware though that Sonos currently cannot play 24 bit files.

Rip Path should be left as default so the files are shared onto the network. **Naming** allows customization of the final naming and folder creation within the Music Folder, the default naming save audio tracks to: *\[artist]\[album]\[artist] - [track] - [title]*
or for compilation CDs: *Various Artists\[album]\[track] [artist] - [title]*

Ripping Mode switches between Burst and Secure ripping modes, where secure allows the detection and possible recovery of errors [Secure RipNAS models only].

Audio CD Ripping Engine allows the automatic ripping of audio CDs to be temporally disabled, perhaps the RipNAS is used for other disc type purposes (where if RipNAS Ripping engine is enabled any disc inserted which is not an audio CD is ejected).

Squeezebox & iTunes (Firefly), or Asset UPnP can be configured and disabled if required. If either of these services are not required (ie have a Sonos) then it is prudent to disable the unused services.

5. Restoring RipNAS

It is possible to restore RipNAS, should the need arise (HDD is replaced, or RipNAS stops functioning. There are 2 types of restore: system restore (where any ripped audio or files in all shared folders are left untouched), or a factory reset where all drives are cleared (noting that the drives are quick formatted – it would be possible to recover the files using correct tools). More on www.hfx.at/ripnas/rescue

To perform a restore (both System and factory):

- Shut down RipNAS,
- Put the RESCUE Disk#1 into the drive, after menue will show up, where you can choose whether you want a system or factory reset.
- Put in the RESCUE Disk#1 with the latest software image.
- After loading the latest image, you need to activate Windows again.

6. RipNAS & Squeezeboxes' (Logitech Duet, Transporter, Boom, SB3, SB2, etc.)

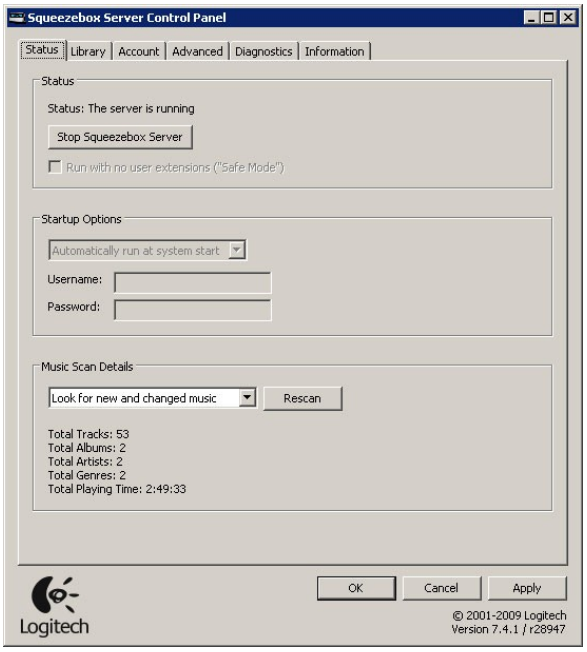
RipNAS comes pre-configured with SqueezeCenter (media streamer for Logitech devices) running. These type-of devices work best with the default FLAC lossless encoder.

The following guide details setting up a Duet with RipNAS. Connect RipNAS to your Wireless home router and switch RipNAS on & your Duet:

From the duet controller (after first switch on or factory reset):

Choose Language >> Select Wireless Region >> Choose Your Wireless Router (entering any passwords to access wireless router).

If RipNAS is also connected to your wireless router it will appear under **Choose Player** as Squeezebox. Your Duet is now ready to play audio from the RipNAS.



Trouble shooting: From the Duet Controller look under Settings >> Music Source, if the RipNAS is recognized then it will appear in the Music Source List.

You can also make changes within Logitech squeezecenter control.

7. RipNAS & Sonos

Sonos is fully compatible with the default RipNAS FLAC lossless codec, and connects to media streamers through network shares. Sonos & RipNAS connections:

To add RipNAS as a music source from the Sonos Controller:

Music Menu >> System Settings >> Music Library Management >> Music Library Setup >> Add New >> Enter New, select each field and select **type**:

Path: \\ripnas\music
User Name: sonos
Password: sonos

Press round Ok button once the password is entered. Sonos should display it is going to index music, click Ok, then select Music >> Music Library.

8. RipNAS & iTunes

RipNAS is able to stream audio to iTunes installed onto PCs & Apple MACs on your home network, from within iTunes select RipNAS (Firefly). Firefly will allow iTunes to play the FLAC audio tracks on a RipNAS.

If using an iPod, set RipNAS to create FLAC and mp3 (with the audio format command disc), then copy the mp3 music over from \\RipNAS\Public\mp3 to your PC and add to

iTunes, which will then synchronize the mp3s to the iPod. Use these account details to access the folder: User: **Administrator** Pass: **ripnas=[serial]** (ex. *Ripnas=123456*)

9. Asset UPnP (DLNA compatible devices)

RipNAS includes Asset UPnP, UPnP (DLNA) is a connection protocol for sharing audio between otherwise unrelated devices. Asset features:

- Album Art support,
- Customizable browse tree with advanced search facilities (Album by Release, Style, Composer, Conductor...),
- Configurable Wave / LPCM decoding (often called transcoding) for devices which cannot play specific audio types,
- ReplayGain can be applied to decoded Wave / LPCM stream, matching volume levels across tracks,
- Internet Radio.

Asset is accessed through Control Point software (such as Kinsky Desktop on the PC, or Konductor/PlugPlayer/Songbook on the iPod), or is accessed directly from the device (such as XBox, PS3). Asset will appear with the name **Asset UPnP: RipNAS**, after selection the device will either read all the tracks automatically from Asset (such as Windows Media Player), or present Asset UPnP's browse menu where artists, albums & tracks can be searched. At the top of many listings are **[A to Z]**, selecting this allows the quick listing of an item based on its first letter. **[Album]** is also presented when browsing Artists; this switches the view to Album rather than listing all the individual tracks from an artist.

Asset features Internet Radio and dynamic playlists (such as newest tracks, most played Albums or a random selection).

For many devices (such as Linn DS) FLAC is the audio codec of choice, others such as the PS3 cannot play FLAC, it is possible to set Asset to stream in a format (such as LPCM for the PS3) on demand, see the section *configuring Asset*.

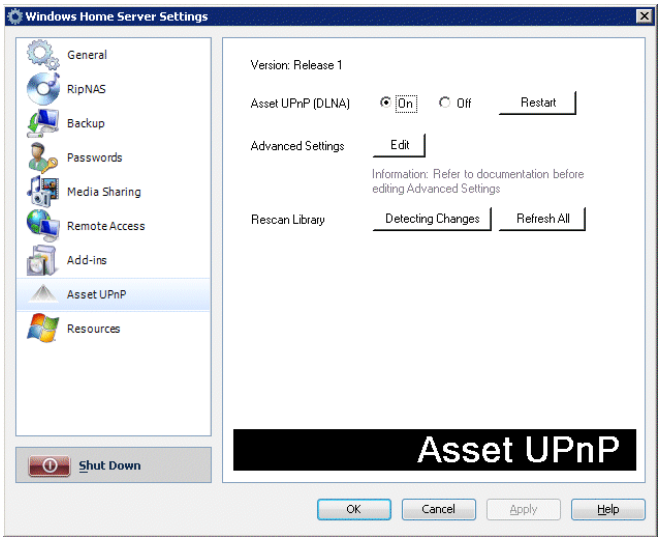
RipNAS comes complete with its own UPnP server – Asset UPnP. UPnP simply put is a connection protocol for sharing audio (and Video, etc) between otherwise unrelated devices. Asset features:

- Album Art support,
- Customizable browse tree with advanced search facilities (Album by Release, Style, Composer, Conductor...),
- Configurable Wave / LPCM decoding (often called transcoding) for devices which cannot play specific audio types,
- ReplayGain can be applied to decoded Wave / LPCM stream, volume matching across tracks for devices which have no support,

Browsing with Asset

Asset is accessed directly from the device (such as XBox, PS3) or through Control Point software running on a PC or even hand-held Controllers, Asset will appear with the name **Asset UPnP: [Computer Name]**. After selection the device will either read all the tracks automatically from Asset (such as Windows Media Player), or present Asset UPnP's browse menu where artists / albums / tracks can be searched. At the top of many listings are **[A to Z]**, selecting this allows the quick listing of an item based on its first letter. **[Album]** is also presented when browsing Artists; this switches the view to Album rather than listing all the individual tracks from an artist.

From Windows Home Server Asset can be configured:



Asset can be switched **On**, **Off** or **Restarted**. Asset watches the Music share for changes and updates automatically, it is also possible to force a rescan of the library with Rescan Library (Refresh All rescans the whole library from scratch).